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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/527,980      | 03/15/2005  | Adalbert Huber       | MERCK-2981          | 1788             |

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EXAMINER

HAILEY, PATRICIA L

ART UNIT PAPER NUMBER

1755

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/527,980

Applicant(s)

HUBER ET AL.

Examiner

Patricia L. Hailey

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>03/15/05</u> . | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1755

Applicants' Preliminary Amendment, filed on March 15, 2005, has been made of record and entered. Claim 5 has been amended to eliminate multiple claim dependency; no new claims have been added.

Claims 1-13 remain pending in this application.

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Applicants' Priority Document was filed on March 15, 2005.

***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. ***Claim 12 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.***

Claim 12 in its present form recites: "Use of the surface-modified effect pigments...", which is non-statutory subject matter.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 1755

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

**5. Claims 1-3 and 8-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Schauer et al. (U. S. Patent No. 6,686,046).**

***The applied reference has common inventors with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.***

Schauer et al. disclose particles provided with a coating of LCST polymers, prepared by dissolving an LCST polymer in a solvent at a temperature below the LCST, mixing the particles with the resulting solution, and raising the temperature of the resulting mixture to, and optionally beyond, the temperature at which the LCST polymer deposits onto the particle surfaces. See col. 1, lines 48-55 of Schauer et al. (considered

Art Unit: 1755

to read upon **claim 10**), as well as col. 2, lines 21-41, which also discloses that the resultant LCST polymer coating applied to the particles exhibits thicknesses preferably greater than or equal to 50 nm (considered to read upon **claim 2**), and further discloses that the aforementioned coating process “is very preferably carried out such that subsequently to or during formation of the coating the LCST polymer is rendered immobile on the surface of the substrates to be coated therewith.”

Exemplary particles that can be coated include pigments. See col. 1, line 66 to col. 2, line 9 of Schauer et al., which also discloses titanium dioxide and iron oxide as specific examples of pigments (considered to read upon **claims 8 and 9**, as well as upon the claim limitation “effect pigments” in **claim 1**).

The pigments coated by the LCST polymers can be used to produce binder-free pigment pastes containing a carrier medium, preferably water or an organic solvent, which by reason of their freedom from binding agents can be used universally in paints and varnishes. See col. 4, lines 5-17 of Schauer et al. (considered to read upon **claims 12 and 13**).

Examples of the LCST polymers are the same as those recited in Applicants’ **claim 3**. See col. 4, lines 31-40 of Schauer et al.

Schauer et al. at col. 4, lines 18-25 disclose the feasibility in incorporating functional components such as UV stabilizers, chromophores, or luminescent components into the LCST coating. This disclosure is considered to read upon **claim 11**.

Art Unit: 1755

Lastly, Schauer et al. at col. 4, lines 28-30 disclose that "coating with LCST polymers may also serve to modify the particle surface..."; this disclosure is considered to read upon the claim limitation "surface-modified" in the instant claims.

In view of these teachings, Schauer et al. anticipate claims 1-3 and 8-13.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

Art Unit: 1755

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**9. Claims 1 and 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winter et al. (U. S. Patent No. 5,563,242).**

Winter et al. disclose a polymer film composition comprising a base or color coat comprising a binder and an organic pigment or inorganic pigment or mixture thereof, and a clear coat adhering to the base coat. See col. 4, lines 46-51 of Winter et al.

The polymer film may also contain stabilized therein an organic material. Examples of these include polystyrene, poly-( $\alpha$ -methylstyrene), copolymers of styrene or methylstyrene, homopolymers and copolymers of cyclic ethers, such as polyalkylene glycols, polyethylene oxide, polypropylene oxide or copolymers thereof with bis-glycidyl ethers, and polysiloxanes such as polyorganosiloxanes. See col. 6, lines 24-28, col. 6, line 48 to col. 7, line 2, col. 7, lines 26-28, and col. 5, lines 29-32 of Winter et al. (considered to read upon **claims 4 and 5**).

The stabilized polymer composition may also contain from about 0.01 to about 5% of conventional additives such as antioxidants, fillers such as carbon black, and plasticizers. See col. 9, lines 32-37 and col. 12, lines 54-62 of Winter et al. (considered to read upon **claims 6 and 7**).

Winter et al. do not explicitly recite terms such as "surface-modified pigments", or "LCST and/or UCST polymers", as recited in claim 1. However, because this reference reads upon claims 1 and 4-7 with respect to the disclosed polymers, pigments, and additives, it would have been obvious to one having ordinary skill in the art at the time

Art Unit: 1755

the invention was made to reasonably expect the polymer film composition disclosed in Winter et al. would function as a "surface-modified effect pigment", absent the showing of convincing evidence to the contrary.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Hailey whose telephone number is (571) 272-1369. The examiner can normally be reached on Mondays-Fridays.

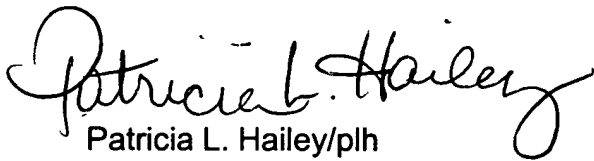
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 1700 Receptionist, whose telephone number is (571) 272-1700.



Art Unit: 1755

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Patricia L. Hailey/plh  
Examiner, Art Unit 1755  
September 18, 2006



J.A. LORENZO  
SUPERVISORY PATENT EXAMINER